



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,257	06/06/2001	Robert Hans Meloen	3516.2US	6928

24247 7590 04/28/2003

TRASK BRITT  
P.O. BOX 2550  
SALT LAKE CITY, UT 84110

EXAMINER

RUSSEL, JEFFREY E

ART UNIT	PAPER NUMBER
----------	--------------

1654

DATE MAILED: 04/28/2003

19

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,257	06/06/2001	Robert Hans Meloen	3516.2US	6928

24247 7590 04/28/2003

TRASK BRITT  
P.O. BOX 2550  
SALT LAKE CITY, UT 84110

EXAMINER

RUSSEL, JEFFREY E

ART UNIT	PAPER NUMBER
----------	--------------

1654

DATE MAILED: 04/28/2003

78

Please find below and/or attached an Office communication concerning this application or proceeding.



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**

Address: ASSISTANT COMMISSIONER FOR PATENTS

Washington, D.C. 20231

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
---------------------------------	-------------	---	---------------------

EXAMINER
----------

ART UNIT	PAPER
----------	-------

17

DATE MAILED:

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

See attachment.

Art Unit: 1654

1. This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821(a)(1) and (a)(2). However, this application fails to comply with the requirements of 37 CFR 1.821 through 1.825 for the reason(s) set forth on the attached Notice To Comply With Requirements For Patent Applications Containing Nucleotide Sequence And/Or Amino Acid Sequence Disclosures. Applicant must comply with the requirements of the sequence rules (37 CFR 1.821 - 1.825) before the application can be examined under 35 U.S.C. §§ 131 and 132.

See the attached Raw Sequence Listing Error Report.

Applicant is given ONE MONTH from the mailing date of this communication within which to comply with the sequence rules, 37 CFR 1.821 - 1.825. Failure to comply with these requirements will result in ABANDONMENT of the application under 37 CFR 1.821(g). Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a). Direct the reply to the undersigned. Applicant is requested to return a copy of the attached Notice to Comply with the reply.

2. Because the disks are being irradiated by electron bombardment and are showing up melted, unreadable, and or crazed (CDROMS), a reply to a notice to comply with the sequence rules should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office.

Please direct all replies to the United States Patent and Trademark Office via one (1) of the following:

1. Electronically submitted through EFS-Bio  
(<http://www.uspto.gov/ebs/efs/downloads/documents.htm>), EFS Submission User Manual - ePAVE)

Art Unit: 1654

2. Mailed to:

**U.S. Patent and Trademark Office  
Box Sequence, P.O. Box 2327  
Arlington, VA 22202**

3. Mailed by Federal Express, United Parcel Service or other delivery service to:

**U. S. Patent and Trademark Office  
2011 South Clark Place  
Customer Window, Box Sequence  
Crystal Plaza Two, Lobby, Room 1B03  
Arlington, Virginia 22202**

4. Hand Carried directly to the Customer Window at:

**2011 South Clark Place  
Crystal Plaza Two, Lobby, Room 1B03, Box Sequence,  
Arlington, Virginia 22202**

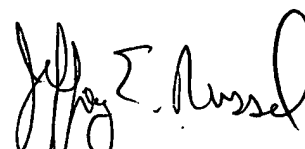
3. A review of Applicants' amendment filed March 24, 2003 shows that Applicants are unfamiliar with the amendment procedures which are required in reissue applications. See 37 CFR 1.173 and MPEP 1453. The amendment procedures for reissue applications are different than those regular non-provisional applications. A clean copy of an amended paragraph or claim must never be submitted in a reissue application. In a reissue application, all changes which are made relative to the patent being examined (rather than relative to any previously submitted amendment) must be marked in accordance with the reissue amendment rules. For example, no matter what changes are made with respect to the paper copy of the sequence listing filed March 24, 2003 in response to the attached Raw Sequence Listing Error Report, any newly submitted paper copy of the sequence listing must be entirely underlined because its contents constitute an amendment to the patent specification being examined. (Note that the contents of the computer readable form copy of the sequence listing must not be underlined - this would cause the computer readable form copy of the sequence listing to be disapproved by STIC.) The

Art Unit: 1654

amendments to the specification and claims contained in the amendment filed March 24, 2003 have not been entered because of non-conformance with 37 CFR 1.173 as discussed above, and also because the amendment to claim 5 was not marked with the parenthetical expression "(twice amended)" (see 37 CFR 1.173(b)(2)). Finally, the paper copy of the sequence listing should be inserted between the end of the specification and the beginning of the claims.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey E. Russel at telephone number (703) 308-3975. The examiner can normally be reached on Monday-Thursday from 8:30 A.M. to 6:00 P.M. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Brenda Brumback can be reached at (703) 306-3220. The fax number for Art Unit 1654 for formal communications is (703) 305-3014; for informal communications such as proposed amendments, the fax number (703) 746-5175 can be used. The telephone number for the Technology Center 1 receptionist is (703) 308-0196.



Jeffrey E. Russel

Primary Patent Examiner

Art Unit 1654

JRussel  
April 22, 2003

**NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

Applicant must file the items indicated below within the time period set the Office action to which the Notice is attached to avoid abandonment under 35 U.S.C. § 133 (extensions of time may be obtained under the provisions of 37 CFR 1.136(a)).

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s):

- ☐ 1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to the final rulemaking notice published at 55 FR 18230 (May 1, 1990), and 1114 OG 29 (May 15, 1990). If the effective filing date is on or after July 1, 1998, see the final rulemaking notice published at 63 FR 29620 (June 1, 1998) and 1211 OG 82 (June 23, 1998).
- ☐ 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).
- ☐ 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).
- ☒ 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked-up "Raw Sequence Listing."
- ☐ 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).
- ☐ 6. The paper copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).
- ☐ 7. Other:

**Applicant Must Provide:**

- ☒ An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".
- ☒ An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification.
- ☒ A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g).

For questions regarding compliance to these requirements, please contact:

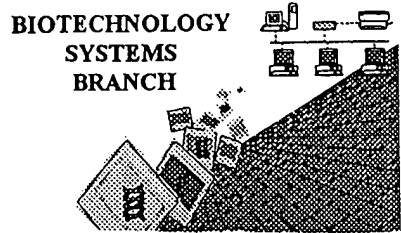
- For Rules Interpretation, call (703) 308-4216 or (703) 308-2923
- For CRF Submission Help, call (703) 308-4212
- For PatentIn software Program Support:
  - HELP DESK: (703) 739-8559, ext 508, M-F, 8 AM to 5 PM EST except holidays
  - Email: [PATIN21HELP@uspto.gov](mailto:PATIN21HELP@uspto.gov)
  - To purchase PatentIn software: (703) 306-2600

**PLEASE RETURN A COPY OF THIS NOTICE WITH YOUR RESPONSE**

*Jeffrey E. Russel*  
 Jeffrey E. Russel  
 Primary Patent Examiner  
 Art Unit 1653

J. Russell

Re-run



## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/876,257C  
Source: 1600  
Date Processed by STIC: 3/27/03

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: [patin3help@uspto.gov](mailto:patin3help@uspto.gov) or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/efb/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:  
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7<sup>th</sup> Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202  
Or  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202





1600

Unlabeled sample  
 Residue

## RAW SEQUENCE LISTING

DATE: 03/27/2003

PATENT APPLICATION: US/09/876,257C

TIME: 12:55:22

Error cap 2

Input Set : A:\SEQUENCE LISTING Of App. No. 09 876,257.txt

Output Set: N:\CRF4\03272003\I876257C.raw

2 <110> APPLICANT: Meloen, Robert H  
 3 Oonk, Hendrica B  
 5 <120> TITLE OF INVENTION: PEPTIDE, IMMUNOGENIC COMPOSITION AND VACCINE OR  
 6 MEDICAL PREPARATION, A METHOD TO IMMUNISE ANIMALS  
 7 AGAINST THE HORMONE LHRH, AND ANALOGS OF THE LHRH  
 8 TANDEM REPEAT PEPTIDE AND THEIR USE AS VACCINE  
 10 <130> FILE REFERENCE: 3516.2US  
 12 <140> CURRENT APPLICATION NUMBER: US 09/876,257C  
 13 <141> CURRENT FILING DATE: 2001-06-06  
 15 <160> NUMBER OF SEQ ID NOS: 7  
 16 <170> SOFTWARE: PatentIn version 3.1  
 18 <210> SEQ ID NO: 1  
 19 <211> LENGTH: 10  
 20 <212> TYPE: PRT  
 21 <213> ORGANISM: Unknown  
 23 <220> FEATURE:  
 24 <223> OTHER INFORMATION: Luteinising Hormone Releasing Hormone (LHRH) from the  
 25 hypothalamus of an undisclosed mammal.  
 27 <220> FEATURE:  
 28 <221> NAME/KEY: misc\_feature  
 29 <222> LOCATION: (1)..(1)  
 30 <223> OTHER INFORMATION: X at position 1 = pyroglutamic acid  
 32 <220> FEATURE:  
 33 <221> NAME/KEY: misc\_feature  
 34 <222> LOCATION: (10)..(10)  
 35 <223> OTHER INFORMATION: X at position 10 = glycine amide  
 37 <400> SEQUENCE: 1  
 W--> 39 Xaa His Trp Ser Tyr Gly Leu Arg Pro Xaa  
 40 1 5 10  
 43 <210> SEQ ID NO: 2  
 44 <211> LENGTH: 20  
 45 <212> TYPE: PRT  
 46 <213> ORGANISM: Artificial Sequence  
 48 <220> FEATURE:  
 49 <223> OTHER INFORMATION: Vaccine against LHRH from the hypothalamus of an  
 50 undisclosed mammal.  
 52 <220> FEATURE:  
 53 <221> NAME/KEY: misc\_feature  
 54 <222> LOCATION: (1)..(1)  
 55 <223> OTHER INFORMATION: X at position 1 = preferably pyroglutamic acid, but can  
 56 also be glutamine having attached thereto a tail comprising one or  
 57 more additional amino acids  
 59 <220> FEATURE:

## RAW SEQUENCE LISTING

DATE: 03/27/2003

PATENT APPLICATION: US/09/876,257C

TIME: 12:55:22

Input Set : A:\SEQUENCE LISTING Of App. No. 09 876,257.txt

Output Set: N:\CRF4\03272003\I876257C.raw

60 <221> NAME/KEY: misc\_feature  
61 <222> LOCATION: (3)..(3)  
62 <223> OTHER INFORMATION: X at position 3 = tryptophan or formylated tryptophan  
64 <220> FEATURE:  
65 <221> NAME/KEY: misc\_feature  
66 <222> LOCATION: (10)..(11)  
67 <223> OTHER INFORMATION: The bond between amino acids 10 and 11 could comprise a  
68 direct peptide bond between 10 and 11 or a spacer consisting  
69 of one or more amino acids, a shorter or longer hydrocarbon  
70 chain, or compound groups or molecules  
72 <220> FEATURE:  
73 <221> NAME/KEY: misc\_feature  
74 <222> LOCATION: (13)..(13)  
75 <223> OTHER INFORMATION: X at position 13 = tryptophan or formylated tryptophan  
77 <220> FEATURE:  
78 <221> NAME/KEY: misc\_feature  
79 <222> LOCATION: (10)..(20)  
80 <223> OTHER INFORMATION: The sequence comprising residues 10-20 may be repeated.  
82 <220> FEATURE:  
83 <221> NAME/KEY: misc\_feature  
84 <222> LOCATION: (21)..(21) - *Xaa found at position 20! (anything is 20)*  
85 <223> OTHER INFORMATION: X at position 21 = either nothing or a tail comprising  
86 additional amino acid; preferably Cys, the C terminal cysteine  
87 being added in connection with a possible coupling of the  
88 peptide to a carrier protein.  
90 <400> SEQUENCE: 2  
W--> 92 Xaa His Xaa Ser Tyr Gly Leu Arg Pro Gly Gln His Xaa Ser Tyr Gly  
93 1 5 10 15  
96 Leu Arg Pro Xaa  
97 20  
100 <210> SEQ ID NO: 3  
101 <211> LENGTH: 21  
102 <212> TYPE: PRT  
103 <213> ORGANISM: Artificial Sequence  
105 <220> FEATURE:  
106 <223> OTHER INFORMATION: Vaccine against LHRH from the  
107 hypothalamus of an undisclosed mammal.  
109 <220> FEATURE:  
110 <221> NAME/KEY: misc\_feature  
111 <222> LOCATION: (1)..(1)  
112 <223> OTHER INFORMATION: X at position 1 = pyroglutamic acid  
114 <220> FEATURE:  
115 <221> NAME/KEY: misc\_feature  
116 <222> LOCATION: (3)..(3)  
117 <223> OTHER INFORMATION: X at position 3 = tryptophan or N-formyl-Trp  
119 <220> FEATURE:  
120 <221> NAME/KEY: misc\_feature  
121 <222> LOCATION: (13)..(13)  
122 <223> OTHER INFORMATION: X at position 13 = tryptophan or N-formyl-Trp

## RAW SEQUENCE LISTING

DATE: 03/27/2003

PATENT APPLICATION: US/09/876,257C

TIME: 12:55:22

Input Set : A:\SEQUENCE LISTING Of App. No. 09 876,257.txt

Output Set: N:\CRF4\03272003\I876257C.raw

```

124 <220> FEATURE:
125 <221> NAME/KEY: misc_feature
126 <222> LOCATION: (10)..(19)
127 <223> OTHER INFORMATION: The sequence comprising residues 10-19 may be repeated.
129 <400> SEQUENCE: 3
W--> 131 Xaa His Xaa Ser Tyr Gly Leu Arg Pro Gly Gln His Xaa Ser Tyr Gly
      132 1             5             10             15
      135 Leu Arg Pro Gly Cys
      136             20
      139 <210> SEQ ID NO: 4
      140 <211> LENGTH: 21
      141 <212> TYPE: PRT
      142 <213> ORGANISM: Artificial Sequence
      144 <220> FEATURE:
      145 <223> OTHER INFORMATION: Vaccine against LHRH from the
      146 hypothalamus of an undisclosed mammal.
      148 <220> FEATURE:
      149 <221> NAME/KEY: misc_feature
      150 <222> LOCATION: (1)..(1)
      151 <223> OTHER INFORMATION: X at position 1 = pyroglutamic acid
      153 <220> FEATURE:
      154 <221> NAME/KEY: misc_feature
      155 <222> LOCATION: (6)..(6)
      156 <223> OTHER INFORMATION: X at position 6 = a possible replacement of glycine
      157 by a dextrorotatory amino acid which in addition contains a side
      158 chain by which the LHRH tandem unit can be coupled to a carrier
      159 compound.
      161 <220> FEATURE:
      162 <221> NAME/KEY: misc_feature
      163 <222> LOCATION: (16)..(16)
      164 <223> OTHER INFORMATION: X at position 16 = a possible replacement of
      165 glycine by a dextrorotatory amino acid which in addition contains a side chain
by which the LHRH tandem unit can be coupled to a carrier compound.
      167 <400> SEQUENCE: 4
W--> 169 Xaa His Trp Ser Tyr Xaa Leu Arg Pro Gly Gln His Trp Ser Tyr Xaa
      170 1             5             10             15
      173 Leu Arg Pro Gly Cys
      174             20
      177 <210> SEQ ID NO: 5
      178 <211> LENGTH: 11
      179 <212> TYPE: PRT
      180 <213> ORGANISM: Artificial Sequence
      182 <220> FEATURE:
      183 <223> OTHER INFORMATION: Vaccine against LHRH from the
      184 hypothalamus of an undisclosed mammal.
      186 <220> FEATURE:
      187 <221> NAME/KEY: misc_feature
      188 <222> LOCATION: (1)..(1)
      189 <223> OTHER INFORMATION: X at position 1 = pyroglutamic acid
      191 <220> FEATURE:

```

## RAW SEQUENCE LISTING

DATE: 03/27/2003

PATENT APPLICATION: US/09/876,257C

TIME: 12:55:22

Input Set : A:\SEQUENCE LISTING Of App. No. 09 876,257.txt

Output Set: N:\CRF4\03272003\I876257C.raw

```

192 <221> NAME/KEY: misc_feature
193 <222> LOCATION: (6)..(6)
194 <223> OTHER INFORMATION: X at position 6 = Gly or a dextrorotatory amino
195     acid containing a side chain that allows coupling to a carrier
196     compound.
198 <400> SEQUENCE: 5
W--> 200 Xaa His Trp Ser Tyr Xaa Leu Arg Pro Gly Cys
      201 1             5             10
204 <210> SEQ ID NO: 6
205 <211> LENGTH: 21
206 <212> TYPE: PRT
207 <213> ORGANISM: Artificial Sequence
209 <220> FEATURE:
210 <223> OTHER INFORMATION: Vaccine against LHRH from the
211     hypothalamus of an undisclosed mammal.
213 <220> FEATURE:
214 <221> NAME/KEY: misc_feature
215 <222> LOCATION: (21)..(21)
216 <223> OTHER INFORMATION: X at position 21 = glycine amide
218 <220> FEATURE:
219 <221> NAME/KEY: misc_feature
220 <222> LOCATION: (1)..(21)
221 <223> OTHER INFORMATION: The initial cysteine of the peptide comprising
222     residues 1-21 is joined to the initial cysteine of an
223     identical peptide (residues 22-42) to form a dimer.
225 <400> SEQUENCE: 6
227 Cys Gln His Trp Ser Tyr Gly Leu Arg Pro Gly Gln His Trp Ser Tyr
228 1             5             10             15
W--> 231 Gly Leu Arg Pro Xaa
      232             20
235 <210> SEQ ID NO: 7
236 <211> LENGTH: 22
237 <212> TYPE: PRT
238 <213> ORGANISM: Artificial Sequence
240 <220> FEATURE:
241 <223> OTHER INFORMATION: Vaccine against LHRH from the
242     hypothalamus of an undisclosed mammal.
244 <220> FEATURE:
245 <221> NAME/KEY: misc_feature
246 <222> LOCATION: (7)..(7)
247 <223> OTHER INFORMATION: X at position 7 = a possible replacement of glycine
248     by a dextrorotatory amino acid which in addition contains a side
249     chain by which the LHRH tandem unit can be coupled to a carrier
250     compound.
252 <220> FEATURE:
253 <221> NAME/KEY: misc_feature
254 <222> LOCATION: (17)..(17)
255 <223> OTHER INFORMATION: X at position 17 = a possible replacement of
256     glycine by a dextrorotatory amino acid which in addition contains

```

## RAW SEQUENCE LISTING

DATE: 03/27/2003

PATENT APPLICATION: US/09/876,257C

TIME: 12:55:22

Input Set : A:\SEQUENCE LISTING Of App. No. 09 876,257.txt

Output Set: N:\CRF4\03272003\I876257C.raw

257 a side chain by which the LHRH tandem unit can be coupled to a  
258 carrier compound.  
260 <220> FEATURE:  
261 <221> NAME/KEY: misc\_feature  
262 <222> LOCATION: (1)..(22)  
263 <223> OTHER INFORMATION: The initial cysteine of the peptide comprising  
264 residues 1-22 is joined to the initial cysteine of an identical peptide  
(residues  
265 1-44) to form a dimer.  
267 <400> SEQUENCE: 7  
W--> 269 Cys Gln His Trp Ser Tyr Xaa Leu Arg Pro Gly Gln His Trp Ser Tyr  
270 1 5 10 15  
273 Xaa Leu Arg Pro Gly Cys  
274 20

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/09/876,257C

DATE: 03/27/2003  
TIME: 12:55:23

Input Set : A:\SEQUENCE LISTING Of App. No. 09 876,257.txt  
Output Set: N:\CRF4\03272003\I876257C.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1,10  
Seq#:2; Xaa Pos. 1,3,13,20  
Seq#:3; Xaa Pos. 1,3,13  
Seq#:4; Xaa Pos. 1,6,16  
Seq#:5; Xaa Pos. 1,6  
Seq#:6; Xaa Pos. 21  
Seq#:7; Xaa Pos. 7,17

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:4; Line(s) 165  
Seq#:7; Line(s) 264

## VERIFICATION SUMMARY

DATE: 03/27/2003

PATENT APPLICATION: US/09/876,257C

TIME: 12:55:23

Input Set : A:\SEQUENCE LISTING Of App. No. 09 876,257.txt

Output Set: N:\CRF4\03272003\I876257C.raw

L:39 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0  
L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0  
M:341 Repeated in SeqNo=2  
L:131 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0  
L:169 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
L:200 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0  
L:231 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:16  
L:269 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0  
M:341 Repeated in SeqNo=7

118